

MBTH FOR ALIPHATIC ALDEHYDE MEASUREMENT

Abstract of the Disclosure

A new method is proposed where a limited amount of MBTH is used to detect a point of interest (POI) of an aldehyde in a test sample. Preferably, it reacts with aldehyde first to form an azine. Only if there is remaining MBTH, it is oxidized to another species which combines with the azine to form formazan. However, if there is enough aldehyde, all the MBTH is converted to azine and there is no formation of blue color. Thus, by using the limiting agent MBTH to test the amount of aldehyde around the point of interest, then less aldehyde would produce more blue color and more aldehyde would produce less blue color. This method is especially useful in the quality control of aldehyde products. The end color may be different depending upon the order of addition of the reactants. For example, if an oxidizing agent and MBTH are mixed before adding the aldehyde, a light green to green/blue color results. This method could be used for solution test or for tests on a solid phase such as on nylon membrane. The latter also could be used for measurements with a device or instrument such as a color reader and used in combination with a second aldehyde tester and a pH tester.

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